ASSEMBLY INSTRUCTIONS
FOR
RV-8C CONVERSION KIT

550966

PARTS LIST

PART NO.	ITEM	QUAN.	DESCRIPTION
4271	A	2	Set Screw, 5/16-18 x 3/8" long
1120	B	1	Solder Lug
4037	C	4	Plastic Ring
4038	D	1	Tubing, 1 1/2" OD x 46" long, Condenser Tube
4039	E	1	Coil Cover, 4" Dia., Plastic Tube
4041	F	1	Coil Cap, 4" Dia., Protective Closure
1005	G	1	Screw, 10-32 x 1 3/4" long
1066	H	4	Nut, 10-32 Hex.
1004	J	6	Lockwasher, No. 10 internal
4042	K	2	Clamp, 1 1/2" Dia.
4043	L	1	Threaded Rod, 8-32
1199	M	5	Nut, 8-32 Hex.
2412	N	5	Lockwasher, No. 8 external
A-4046	O	1	Coil Assembly
4274	P	4	Clamp, 3/16" Dia.
1230	Q	2	Sems Screw, 6-32 x 5/8" long
1231	R	2	Keps Nut, 6-32 Hex.
1389	S	1	Strap
4047	T	1	Matching Section Rod, 3/16" Dia.
4048	U	1	Matching Section Loop, 3/16" Dia.
4050	V	2	Insulators, Black Plastic
4051	W	2	Clamp, 1 1/8" Dia.
1517	X	3	Screw, 10-32 x 3/4" long
1064	Y	1	Clamp 7/8" Dia.
2374	Z	1	Screw, 8-32 x 1" long
4053	AA	5	Top Hat Rod, 1/8" Dia.
2217	BB	80 Ft.	Wire, (for radial)
1235	CC	1	Insulator
4055	DD	1	Protective Closure, 1 1/2" Dia. with 1 1/4" Dia. Hole
H-399		1	Instruction Sheet, RV-4C Antenna

NOTE: When ordering replacement parts refer to Mosley Form No. H-624-B and Part No.

The high performance of your MOSLEY antenna can only be achieved if the antenna is assembled in accordance with the instructions supplied. Substitution of materials or modification of design will materially lessen this performance.

ASSEMBLY INSTRUCTIONS

The RV-8C is a 80 meter attachment for converting the RV-4C to a five band vertical antenna.

Read the instructions before attempting assembly. The letters appearing in brackets ( ) in the text and on drawings correspond with item letters on parts list. Numbers in brackets ( ) in the text and on drawings correspond to parts from the RV-4C antenna. The RV-4C and RV-8C instructions will be used for the assembly of the conversion kit. Boxes [ ] are provided for checking your progress of assembly.

- [ ] Dis-assemble connector (3) from base (5) on the RV-4C antenna. Also remove one set screw (7) from bottom of base (5).
- [ ] Drill a 1/8" and 1/4" diameter holes into base (5) as shown in figure 1.
- [ ] Replace existing wire on coax connector (3) with a 4 inch length of wire (BB).
- [ ] Re-assemble connector and wire to base (5) with screws (6) as shown in figure 2. Attach solder lug (B) to end of wire from connector (3) on base assembly and solder.
- [ ] Telescope tubing (16) of the RV-4C antenna into base assembly (5). Install one small set screw (A) into bottom hole on base assembly and secure. Also secure top set screw (7).
- [ ] Place four plastic rings (C) on tubing (16) as shown in figure 2. NOTE: To aid the installation of plastic rings (C), heat parts (C & 16) with hot tap water prior to installation.
- [ ] Telescope condenser tube (D) over plastic rings (C) on tubing (16), see figure 3. Leave about 3/8" between bottom of condenser tube (D) and top of base assembly (5).
- [ ] Slide caplug (DD) over end of tubing (16) and onto condenser tube (D), see figure 3.
- [ ] Place coil assembly (O) inside coil cover (E) and align holes in solder lugs on ends of coil with holes in coil cover (E), see figure 3.
- [ ] Place lockwasher (J) on screw (G). Place screw (G) with lockwasher (J) through hole in solder lug on coil (O), into hole in coil cover (E) and secure with lockwasher and nut (J &H), see figure 3. NOTE: Do not over tighten nuts and break plastic coil cover (E).
- [ ] Place nut (M) and lockwasher (N) on one end of threaded rod (L). Place this end through hole in coil cover (E) and solder lug on other end of coil assembly (O). Secure with nut and lockwasher (M & N), see figure 3.
- [ ] Press cap (F) on top end of coil cover (3).
- [ ] Place clamp (K) on condenser tube (D) close to base assembly, see figure 3.
- [ ] Place threaded rod (L), on coil assembly through hole drilled in bottom of base, see figure 3.
- [ ] Place nut and lockwasher (H &J) on screw (G) at top of coil assembly (O). Place end of screw (G) on coil assembly into hole in clamp (K), lockwasher (J), solder lug (B) on wire from base connector and secure with nut and lockwasher (H &J), see figure 3.
- [ ] Align coil assembly parallel to condenser tube. Place set screw (A) into bottom hole on side of base and secure to hold coil assembly secure, see figure 3. NOTE: THIS SCREW (A) MUST BE TIGHT TO INSURE GOOD ELECTRICAL CONTACT BETWEEN THREADED ROD (L) AND TUBING (16).
- [ ] Re-assemble tubing (17) with antenna attached to tubing (16) and secure with screw (24).
- [ ] Place two clamps (W) on tubing (17). Loosely install two insulators (V) to clamps (W) with screws (X), see figure 3.
- [ ] Slide one of the insulator assembly clamps (W) against top end of tubing (16) and secure screw (X). Leave the other insulator and clamp assembly loose so it may be slipped up or down tubing (17), see figure 3.
- [ ] Slide both ends of the matching section loop (U) through holes in insulators (V) as shown in figure 3.
- [ ] Place clamp (K) about 1 inch down from top end of condenser tube (D). Align holes in clamp (K), strap (S) and loosely secure with screw (X), lockwasher and nut (J &H), see fig. 3.
- [ ] Place small clamp (P) around one end of matching section loop (U), see figure 3. Secure clamp (P) on matching loop (U) to strap (S) with screw (Q) and nut (R).
- [ ] Place small clamp (P) on bottom end of matching section rod (T) and secure to threaded rod (L) on coil assembly with two lockwashers (N) and nuts (M), see figure 3.
- [ ] Loosely connect top end of matching section rod (T) to end of matching section loop (U) with clamps (P), screw (Q) and nut (R), see figure 3.
- [ ] All the loose connections will be secured later when adjusting for resonant frequency on the 80 meter band.

GROUND MOUNTING RV-4C WITH RV-8C KIT ATTACHED

- [ ] For 80 meter operation add a 79' foot long radial wire (BB) to screw (11) on base casting (10) of the RV-4C antenna, see figure 2 on RV-4C instruction sheet.
- [ ] Adjust resonance for desired frequency of operation by sliding top insulator and clamp assembly (V &W) with matching section loop (U) up or down element section (17) and clamp (K) on condenser tube (D) to length "L" shown on frequency chart. NOTE: THE DIMENSIONS SHOWN ON CHART ARE APPROXIMATE SETTINGS AND WILL CHANGE FROM ONE INSTALLATION TO ANOTHER.
  The longer the matching section loop (U), the lower the frequency of operation; the shorter the matching section loop, the higher the frequency of operation.
- [ ] For 40 meter operation element extension (21) on the RV-4C should be on the shortest setting, see figure 3 on RV-4C instruction sheet.
- [ ] Two of the top hat rods (26) should be attached to the element extension (22) with screw (27) and washer (25), see figure 3 on RV-4C instruction sheet.
- [ ] For 20 meter operation cut and bend one of the top hat rods (26) of the RV-4C antenna as shown in figure 4. Attach the bent rod to element section (19) of the RV-4C antenna with clamp (Y), screw (Z), lockwasher (N) and nut (M) from conversion kit hardware, see figure 6.
- [ ] This clamp should be about 3 inches down from top of element section (19), see figure 6.

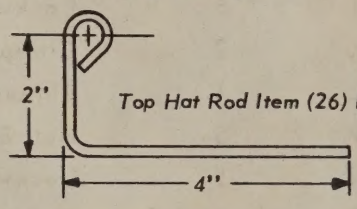

FIGURE 4

- [ ] For 15 meter operation attach clamp (28) and rod (32) to the 10 & 15 meter trap assembly (18) with screw (29), lockwasher (30) and nut (31), as shown in figure 4 on RV-4C instruction sheet.

ROOF MOUNTING RV-4C WITH RV-8C KIT ATTACHED

- [ ] For 80 meter operation attach insulator (CC) to other end of radial wire and secure in the same manner as the 40, 20, 15 & 10 meter radial wires. Refer to RV-4C instruction sheet.
- [ ] Adjusting resonant frequency will be the same as per the ground mounting instructions.
- [ ] For 40 meter operation element extension (21) on the RV-4C antenna should be on the longest setting.
- [ ] Five top hat rods (AA) from conversion kit hardware should be attached to element extension (22) with screw (27) and washer (25), see figure 4 on RV-4C instruction sheet.
- [ ] For 20 meter operation cut and bend one of the top hat rods (26) of the RV-4C antenna as shown in figure 5. Attach the bent rod to the element section (19) of the RV-4C antenna with clamp (Y), screw (Z), lockwasher (N) and nut (M) from the conversion kit hardware, see figure 6.
- [ ] This clamp should be about 3 inches down from top of element section (19), see figure 6.

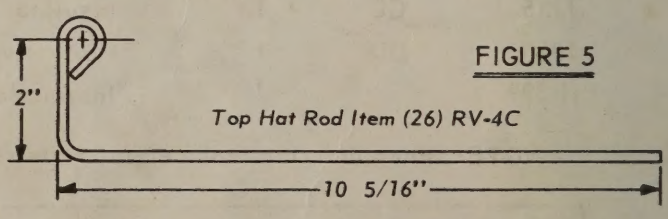

FIGURE 5

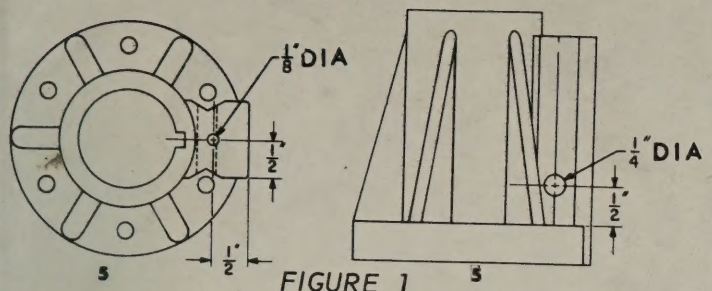

FIGURE 1

80 METER FREQUENCY CHART

FREQUENCY IN MHz.	"L" DIMENSION
3.500	43 3/4"
3.600	37 3/8"
3.700	31 1/2"
3.800	26 1/2"
3.900	21 5/8"
4.000	17"

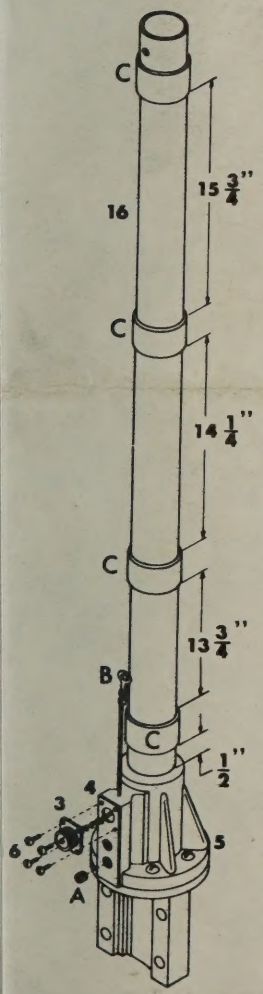

FIGURE 2

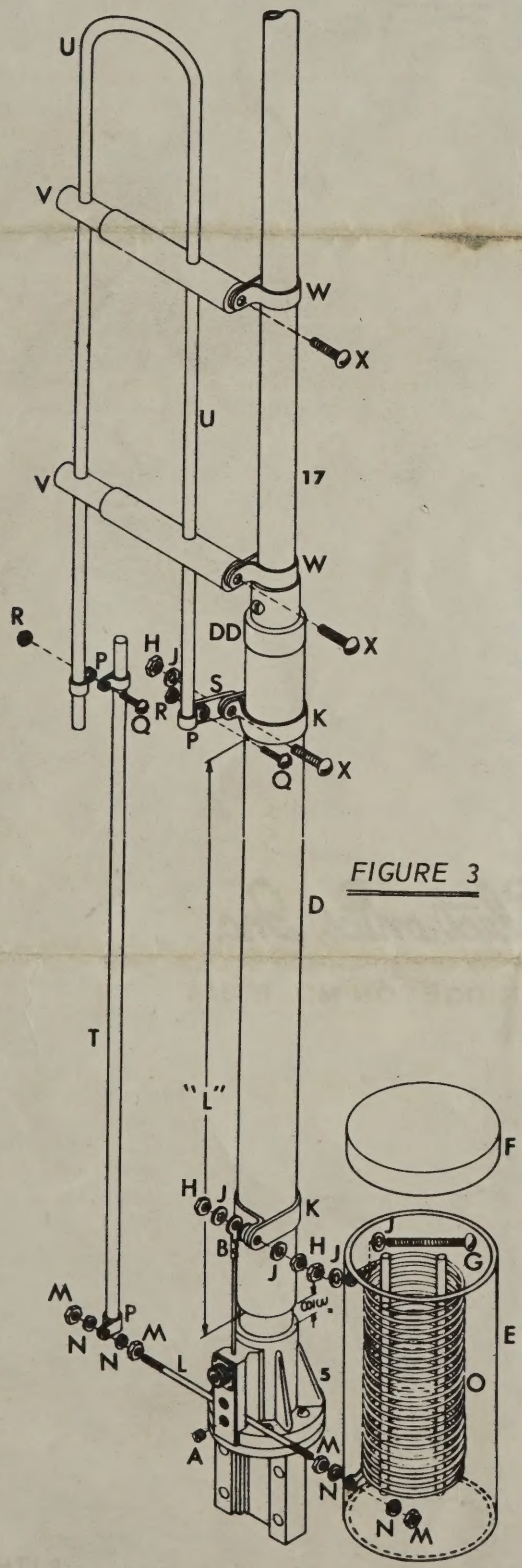

FIGURE 3

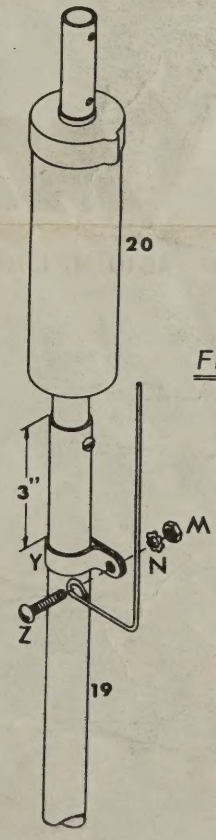

FIGURE 6

Mosley Electronics, Inc.

4610 N. LINDBERGH BLVD., BRIDGETON MO. 63044

FORM NO. H-624B

LITHO in U.S.A.